

## RECORDS OF SCARABAEOIDEA (COLEOPTERA) FROM CHARLEVILLE, QUEENSLAND

By P. G. Allsopp

Department of Primary Industries, P.O. Box 102, Toowoomba, Qld., 4350

The town of Charleville (26°25'S, 146°13'E) is approximately 650 km west of Brisbane and lies within an extensive grazing district. The area surrounding the town is virtually flat, about 300 m above sea level, and, apart from along the watercourses, is covered by mulga scrub. Rainfall is low, an average of 45 cm per annum, and temperatures fluctuate from a mean monthly minimum of 4.5°C in July to a mean monthly maximum of 36.4°C in January.

In the more recent major revisions of Australian scarabs (Britton 1957; Carne, 1957a, 1957b, 1958; Matthews, 1972, 1974, 1976) there are no records of any species from Charleville. During the period January 1973 to October 1975, numerous visits were made to the district and the opportunity to collect scarabs was taken. Collection methods involved the use of black-light traps and baited pitfall traps as well as digging specimens from burrows, animal manure and mushrooms.

Specimens of those species not determined to specific level in this paper have been lodged in the collection of the Queensland Department of Primary Industries, Brisbane. Duplicate specimens are in the author's collection.

It is interesting to note that no specimens of the Rutelinae or Centoniinae were found during this study. Carne (1958) notes that the majority of species of Australian rutelines occur on or near the coast, very few on the arid interior. The only species recorded from south-west Queensland is *Eusaulostomus minicus* (Lea) from Cunnamulla, 200 km south of Charleville (Carne, 1956). The Australian Centoniinae require revision and there is no paper in which adequate distributional data is presented to allow a comparison of the Charleville region.

### List of species

#### SCARABAEINAE

*Onthophagus atrox* Harold. Very common from October to April. Taken at cow and sheep dung, human excrement and at light. A westward extension of its known range (Matthews, 1972).

*Onthophagus consentaneus* Harold. Common from February to April. Taken at cow dung, human excrement and decaying fish bones. According to Matthews (1972) this species has the most extensive distribution of any Australian *Onthophagus*.

*Onthophagus perpilosus* Macleay. Taken only at cow dung during March. Matthews (1972) gives Roma (270 km east of Charleville) as the most western record.

*Onthophagus pugnacior* Blackburn. Very common during October to April. Taken at cow, sheep and horse dung, human excrement, light and in burrows. A common central Queensland species (Matthews, 1972).

*Onthophagus varianus* Lea. A large number of specimens were taken on 2.iv.1975 in mushrooms 1.5 km east of Charleville. Only recorded from Bowen, Queens-

land, and the north of the Northern Territory by Matthews (1972).

*Onthophagus* sp. A. One specimen of an undescribed species was taken in cow dung and another in mushrooms on 2.iv.1975.

*Onthophagus* sp. B. One specimen of this species was taken in a mushroom on 2.iv.1975. Matthews (pers. comm.) labelled the specimen as "sp. nr. *dunningi*", but he considered that a male was needed before saying if it represented a new species.

*Euoniticellus intermedius* Reiche. This introduced species was found in large numbers in cow, horse and sheep dung from the beginning of 1974 onwards.

#### APHODIINAE

*Aphodius lividus* Olivier. Specimens were found in cattle dung and at light during October, November and December.

*Aphodius* sp. Five specimens of this species were taken at light on 10.x.1974 about 0.5 km south of Charleville.

#### DYNASTINAE

*Metanastes vulgivagus* (Olliff). All Queensland records given by Carne (1957) are either coastal or sub-coastal but taken at St. George by Allsopp (1975). Specimens taken at Charleville during October at light.

*Neodon laevipennis* (Blackburn). One specimen taken at a street light on 13.iii.1973. Recorded by Carne (1957) from many places in the interior of Australia.

*Neodon pecuarius* (Reiche). Common during October and November at light. A species with a wide distribution and very common throughout Australia.

#### MELOLONTHINAE

*Colpochila firma* (Blackburn). One specimen taken in a burrow approximately 20 cm deep on 2.iv.1975.

*Gnaphalopoda* sp. One specimen taken at light 2.iv.1975.

*Heteronyx* sp. A. More than 30 specimens were taken at light on 30.x.1975 about 1.5 km east of Charleville.

*Heteronyx* sp. B. One specimen taken at light 16.iii.1974 in Charleville.

*Lepidiota squamulata* Waterhouse. One dead specimen taken on a footpath in Charleville 16.iii.1974.

*Liparetrus rufipennis* Macleay. A male of this species was taken from a shallow burrow on 2.iv.1975.

*Maechidius charaxus* Britton. Two specimens taken at light 30.x.1975. Britton (1957) only records this species from Cloncurry, 860 km north-west of Charleville.

#### TROGIDAE

*Trox* sp. One specimen was taken at light on 13.iii.1973 and two more on 3.iv.1975. Five other specimens were found in sandy soil under rotting fish bones on 2.iv.1975.

#### GEOTRUPIDAE

*Australobolbus carinatus* (Blackburn). Two specimens were dug from burrows 10-15 cm deep in sandy soil on 2.iv.1975.

*Australobolbus laevipes* (Blackburn). Three specimens taken in burrows similar

to those of *A. carinatus* on the same date. Both species were taken in the same area.

*Australobolbus* sp. One specimen was taken at light on 9.xi.1973 — none were found in burrows.

*Blackburnium* sp. A single well-developed male was taken in a 20 cm deep burrow in sandy soil on 30.x.1975. Within the general generic distribution given by Howden and Cooper (1977).

*Bolbobaenus planiceps* (Macleay). One specimen taken in a shallow burrow on 2.iv.1975.

*Bolboleus truncatus* (Blackburn). Two specimens were taken at light on 9.xi.1973 and a further 20+ specimens taken in burrows 20-40 cm deep in sandy soil on 2.iv.1975. Within the general generic distribution given by Howden and Cooper (1977).

*Bolborhachium* sp. *recticorne* (Guerin) group. One specimen taken in a burrow similar to that of *A. carinatus* on 2.iv.1975. Within the general generic distribution given by Howden and Cooper (1977).

*Bolborhachium* sp. nr. *fissicorne* (Bainbridge). One specimen taken at light on 19.v.1973.

*Stenaspidius allsoppi* Howden. Two male specimens, the holotype and a paratype, were taken in shallow burrows, 5 cm deep, in sandy soil on 2.iv.1975. The only other record of this species (Howden, 1976) is from Leyburn, 600 km south-east.

### Acknowledgements

Dr E. G. Matthews identified some of the Scarabaeinae, Dr E. B. Britton, the Melolonthinae and Prof. H. F. Howden, the Geotrupidae. The assistance of these gentlemen is gratefully acknowledged.

### References

- Allsopp, P. G., 1975. Scarabaeidae collected in light traps at St. George, Brookstead and Gatton, Queensland. *Aust. ent. Mag.* 2: 69-71.
- Britton, E. B., 1957. *A revision of the Australian chafers (Coleoptera: Scarabaeidae: Melolonthinae)*. Vol. 1. British Museum (Natural History), London. 185 pp.
- Carne, P. B., 1956. A revision of *Saulostomus* Waterhouse and a description of a new ruteline genus (Scarabaeidae: Coleoptera). *Proc. Linn. Soc. N.S.W.* 81: 62-70.
- Carne, P. B., 1957a. A revision of the ruteline genus *Anoplognathus* Leach (Coleoptera: Scarabaeidae). *Aust. J. Zool.* 5: 88-143.
- Carne, P. B., 1957b. *A systematic revision of the Australian Dynastinae (Coleoptera: Scarabaeidae)*. C.S.I.R.O., Melbourne. 284 pp.
- Carne, P. B., 1958. A review of the Australian Rutelinae (Coleoptera: Scarabaeidae). *Aust. J. Zool.* 6: 162-240.
- Howden, H. F., 1976. A sixth species of *Stenaspidius* Westwood with a note on adult behaviour (Coleoptera: Scarabaeidae: Geotrupinae). *J. Aust. ent. Soc.* 14: 439-441.
- Howden, H. F., and Cooper, J. B., 1977. The generic classification of the Bolboceratini of the Australian region, with descriptions of four new genera (Scarabaeidae: Geotrupinae). *Aust. J. Zool., Suppl. Ser.* 50: 1-50.
- Matthews, E. G., 1972. A revision of the scarabaeine dung beetles of Australia. I. Tribe Onthophagini. *Aust. J. Zool., Suppl. Ser.* 9: 1-330.
- Matthews, E. G., 1974. A revision of the scarabaeine dung beetles of Australia. II. Tribe Scarabaeini. *Aust. J. Zool., Suppl. Ser.* 24: 1-211.
- Matthews, E. G., 1976. A review of the scarabaeine dung beetles of Australia. III. Tribe Coprini. *Aust. J. Zool., Suppl. Ser.* 38: 1-52.